Tatyana Sumner

7201T – Fall 2012

WIKI – 7 Assignment

Ding, C.S., Song, K., & Richardson, L.I. (2006). Do mathematical gender differences continue? A longitudinal study of gender difference and excellence in mathematics performance in the U.S.  *Educational Studies,* *40*(3), 279-295. Retrieved from Education Research Complete Database.

This group of researchers conducted a study of students’ performances over the period of several years to examine whether the gender differences in mathematics still exists. The study has revealed that from 3rd grade through 6th grade both boys and girls displayed the same progression and growth in their mathematical performances, according to their test results. The researches also discover that in their sample, the girls’ great point average in mathematics is greater than that of the boys through middle school and high school, while in elementary school boys lead by a very small margin.

Gunderson, A.E., Ramirez, G., Levine, S.C., & Beilock, S.L. (2012) The role of parents and teachers in the development of gender-related math attitudes. *Sex Roles, 66* 153-166. Retrieved from Education Research Complete Database.

These authors review existing literature and studies that point to the impact parents and teachers make on students math attitudes. The article discusses the findings, which show that despite similar achievements, fewer girls pursue higher mathematic courses and math-oriented careers. They examine how teachers and parents transfer their gender stereotypes and bias beliefs onto children, most of the time, unconsciously, and how it affects students’ attitudes and life choices as pertaining to mathematics.

Herrelko, J.M., Jeffries, K., & Robertson, A. (2009). The impact of single gender elementary school on mathematics classes in an urban school. *Scholarlypartnershiped,* *4*(1). 5-19. Retrieved from IPFW http://opus.ipfw.edu/spe/vol4/iss1/2/

This article discusses a research conducted in Ohio urban school system where several schools reorganized their academic system to create single-gender classrooms. The researchers observed how these changes affected academic achievement and student’s attitudes. The study showed the improvement in academic achievement in both boys and girls in earlier grades (1st – 4th grades) and a decline in later grades (6th grade). The attitudes toward the single-gender learning environment have divided similarly, more positive in the earlier grades and negative in the higher grades.

Kane, J.M. & Mertz, J.E. (2012). Debunking myths about gender and mathematics performance. *Notices of the American Mathematical Society, 59*(1), 10-21. DOI:10:1090/noti790

This article examines various hypotheses that identify reasons behind possible gender gaps in mathematics. Over the years researches proposed a number of culprits of gender gaps, such as genetic cognitive differences, women and men displaying differences based on the sociocultural parameters existing in the environment or that different opportunities are available to men and women among a few others. The researchers collect data from several years and multiple countries to see if it logically supports the numerous hypotheses to explain gender gap.

Leaper, C., Farkas, T., & Spears Brown, C. (2012). Adolescent girls experiences and gender-related beliefs in relation to their motivation in math/science and english. *J Youth Adolescence,* *41*, 268-282. Retrieved from ERIC database.

This study examines the effects of parental and peer support has on girls’ motivation in math/sciences (M/S) and English. The authors also observed whether learning about feminism and gender attitudes would be a significant predictor of girls’ motivation toward M/S and English. After examining the results of the study the researchers concluded that parental (especially mothers) support and not pressure have a great positive effect on girls’ attitudes and motivation in M/S. Additionally the research also outlines that learning about feminism and gender equality reflects positively on girls’ motivation in M/S, while having little effect on motivation in English.